Evolved Ligand Binding Altered Toel Furdion

Plasmid encoding Ag + CD28BP

APC)CD28BP MHC

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Plasmid encoding

Ag + CTLA-4BP

TPBSSIR. OFFIS

MGHTRRQGTSPSKCPYLMFFQLLVLAGLSHFCSG- -VIHVTKEVKSVATLSCGHNVSVBELAQTRIYRQKEKKMVLTMMS MGHTLRPGTPLPRCLHLKLCLLLLALAGLHPSSG----ISQVTKSVKEMAALSCDYNISIDELARMRIYWQKDQQMVL9IIS MGHTLRPGTPLPRCLHLKLCLLLLALAGLHFSSG----ISQVTKSVXEMAALSCDYNISIDELARMRIYWQKDQQMVLSIIS MGHTMKMGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKETVMLSCDYSTSTBELTSLRIYWQXDSKMYLAILP MGKTMKWGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVXETVMLSCDYSTSTRELTSLRIYWQXDSKMVLAILP MGHTMKMGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKETVMLSCDYNTSTEELTSLRIYWQKDSKOVLAILP MGHTMKWGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKETVMLSCDYSTSTERLTBLRIYWQKDSKONTAILP MGHTMKWRSLPPKRPCLWLSQLLVLTGLPYPCSGITPKSVTKRVKETVMLSCDYNTSTERLTSLRIYWQKDSKWVLAILP MGHTMKNGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKETVMLSCDYSTSTEELTSLR1YNGKDSKMYLAILP MGHTLRPGTPLPRCLHLKLCLLLALAGLHFSSG----ISQVTKSVKEMAALSCDYNISIDELARMRIYWQKDQQMVLSIIS MGHTMKNGSLPPKRPCLWLSQLLVLTGLFYPCSGITPKSVTKRVKETVMLSCDYNTSTRELTSLRIYNQXDSKWYLAILD MGKTMKAGSLPPKRPCLALSQLLVLTGLFYFCSGTTPKSVTKRVKETVALSCDYNTSTBELTSLRIYMQKOSKAVLAILP MGHTMKWGSLPPKRPCLWLSQLLVLFGLFYFCSGITPKSVTKRVKETVMLSCDYSTSTEELTSLRIYWQRDSKWYLAILP MGHTMKMGSLPPKRPCLWLSQLLVLTGLFYFCSGTTPKSVTKRVKETVMLSCDYNTSTEBLTSLR1YMQKDBKMTA1LP MGHTMKMGSLIPPKRPCLIMLSQLLVLTGLFY FCSGI TPKSVTKRVKETVMLSCDYNTSTER LTSLRI YWQXDSKWVLAI LP mchtmkwcslppkrpclalsqllvligleyfcsgltpksvtkryketvmlscdyntsterltrywqkdkmcknll MGHTMKWGSLPPKRPCLMLSQLLVLJGLPY PCSGI TPKSVTKRVKETVMLSCDYNTSTEBLJSLRI YWQKDSKMVLAI LP MGHTMKWRSLPPKRPCLWLSQLLVLJGLPYPCSGITPKSVTKRVKETVMLSCDYSTSTERLJSLRIYWQKDSKWTLAILP MGHTMKNGSLPPKRPCLWLSQLLVLTGLFYPCSGITPXSVTKRVKETVMLSCDYNASTEELTSLRIYNQKDSKAVLAILP MGHTMKNGSLPPKRPCLALSQLLVLTGLFYPCSGITPKSVTKRVKRTVMLSCDYSTSTEELTSLRIYMQKDSKAVLAILP mghtmkngslepekrpclmlsollvliglevecsgitpksvikrvketvmlscdyntstrelislriymoxdskavlailp MGHTMKWGSLPPKRPCLMLSQLLVLTGLFYPCSGITPKSVTKRVKGTVMLSCDYSTSTBELTSLRIYMQKDSKMVLAILP MGHTMKNGSLPPKRPCLAILSQLLVLTGLFYFCSGITPKSVTKRVKBTVNLSCDYNTSTBELTSLRIYWRDSKAKLAILP MGHTMKNGSLPPXCPCLMLSQLLVLTGLPYPCSGITPKSVTKRVKETVMLSCDYNTSTBELTSLRIYNQKDSKMVLAILP MGHTMKWGSLIPPKRPCLMLSQLLVLTGLPYPCSGITPKSVTKRVKBTVML3CDYNTSTBKLTSLR1YMQKDSKMYLAILP MGHTMKWGSLPPKRPCLMLSQLLVLTGLPYPCSGITPKSVTKRVKBTVNLSCDYNTSTEELTSLRIYMQKDSKMVLAILP MGHTMKMGSLPPXRPCLMLPQLLVLTGLPYPCSGITPKSVTKRVKBTVMLSCDYNTSTBELTSLRIYMQKDSKMVLAILP MGHTMKWGSLPPKRPCLMLSQLLVLTGLFYPCSGITPKSVTKRVKBTVMLSCDYNTSTRELTSLRIYMQKDSKMYLAILP MGHTMKWGSLPPKRPCLMLSQLLVLTGLFYFCSGITPKSVTKRVKBTVMPSCDYSTSTBELTSLRIYNQVOSKMVLAILP MGHTMKRGSLPPKRPCLMLSQLLVLTGLPYPCSGITPKSVTKRVKBTVNLSCDYNTSTBELTSLRIYNQKDSKMYLAILP MGHTMKWGSLPPKRPCLMLSQLLVLTGLPYFCSGITPKSVTKRVKBTVKLSCDYNTSTERLTSLRIYMQKDSKMVLAILP MGHTMKWGSLPPKRPCLMLSQLLVLTGLPYPCSGLTPKSVTKRVKBTVMLSCDYNTSTBELTSLR1YHQKDSKMYLAJLP MCHIMIXMGSLPPKRPCLMLSQLLVLTGLPYFCSGITPKSVTKRVKETVNLSCDYSTSTBELTSLRIYMQKDSKMVLAILP MGHTMKMGSLPPKRPCLMLSQLLYLTGLPY FCSGLTPKSVTKRVKBTVMLSCDYSTSTBELTSLR1YMQKDSKWVLALLP MGNTMKNGSLPPKRPCLMPSQLLVLTGLFY PCSGITPKSVTKRVKBTVNLSCDYNTSTRELTSLRIYMQKOSKAVLAILP Extracellular domain (ECD) Signal sequence Ξ Ξ Ξ Ξ £ Ξ 3 Ξ Ξ Ξ Ξ 3 3 3 33 $\hat{\Xi}$ $\widehat{\Xi}$ 33 Ξ Ξ 7 $\widehat{\Xi}$ $\widehat{\mathbf{H}}$ SEQ: 054 R2 CD28BP-3
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Fig. 2A

MCHIMKNGSLPPKRPCLMLSQLLVLTGLFYFCSGIJPKSVTKRVKBTVMLSCDYSTBELTSLRIYWQKDSKMVLAILD MGHTMKWGSLPPKRPCLMLSQLLVLTGLPYPCSGITPKSVTKRVKETVMLSCDYSTSTBELTSLRIYWQXDSKMVLAILP MGHTMKWGSLPPKRPCLMLSOLLVITGLPYFCSGITPKSVTKRVKETVMLSCDYNTSTBELTSLRIYWQKDSKMYLAILP MGHTMKWGSLPPKRPCLMLSQLLVLTGLFYPCSGITPKSVTKRVKETVMLSCDYSTBTRBLTSLRIYWQKDSNGYZLAILP MGHTLRPGTPLPRCLHLKLCLLLLALAGLKFSSG----1SQVTKSVKEMAALSCDYNISIDELARMRIYMQKDQQMVLSIIS MGHTMKWGSLPPKRPCLWLSQLLVLTGLPYFC3GITPKSVTKRVKETVMLSCDYNTSTBELTSLRIYWQKDSXXXLAILP MGHTMKWGSLPPKRPCLNLSQLLVLTGLFYFCSGITPKSVTKRVKETVMLSCDYNTSTBELTSLRIYMQKDSKMVLAILP MCHTMKNGSLPPKRPCLMLSQLLVLTGLPYFC3G1TPKSVTKRVKETVMLSCDYSTSTBELTSLRIYMQKDS10MVLAILP MGHTMKWGSLPPKRPCLMLSQLLVLTGLFYFCSGITPKSVTKRVKETVMLSCDYNTSTERLTSLRIYMQKDSKMVLAILP MCHTMKWGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKBTVMLSCDYSTSTERLTSLRIYNQKDSKMVLAILD MGHTMNMGSLPPKRPCLMLSQLLVLTGLFYFCSGTTPKSVTKRVKGTVMLSCDYSTSTEBLTSLR1YMQXDSNAVLAILD MGHTMKWGSLPPKRPCLWLSQLLVLTGLFYFCSGTTPKSVTKRVKBTVMLSCDYSTSTEELTSLRIYMQKDSKMVLAILP MGHTMKWGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKBTVMLSCDYNTSTEBLTSLRIYNQKDSKMVLAILP MGHTMKMGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKGVTKRVKBTVMLSCDYSTSTEELTGLRIYNQXDSKAVLAILP MGHTWKWGSLPPKRPCLWLSQLLVLTDLFYFCSGITPKGVTKRVKBTVMLSCDYNTSTEELTSLRIYNQXDSKWVLAILP MGHTMEWGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKETVMLSCDYNTSTEELTSLRIYWQXDSKMVLAILP MGHTMKWGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKBTVMLSCDYNTSTEELTSLRIYNQXDSKMYLAILP MGHTMKWGSLPPKRPCL#LSQLLVLTGLFYFCSGITPKSVTKRVKBTVMLSÇDYNTSTEELTSLRIYNQXDSKMVLAILP MGHTMKMGSLPPKRPCLWLSQLLVLTQLFYFC8GITPKSVTKRVKBTVMLSCDYNTSTEEL19LRIYNQXDSKMVLAILP MGHTMKWGSLPPKRPCLWLSQLLVLTGLFYPCSGTTPKSVTKRVKBTVMLSCDYNTSTRELTSLRIYNQXDSYMVLAILP MGKTWKWGSLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKRTVMLSCDYSTSTBELTSLRIYNQKDSKMVLAILP MGHTMKNGSLPPKRPCLMLSQLLVLTGLFYPCSGITPKSVTKRVKBTVMLSCDYSTSTRELTSLRIYWQKDSKMYLAILP MGHTMKWGSLPPKRPCLRLSQLLVLTGLPYPCSGI1PKSVTKRVKETVMLSCDYSTSTBELTSLRIYNQKDSKAVLAILP MGHTMKWGSLPPKRPCLMLSQLLVLTGLFYPCSGITPKSVTKRVKETVMLSCDYNTSTEELTSLRIYNQKDSKMVLAILP MGHTMKMGSLPPKRPCLMLSQLLVLTQLFYFCSGTTPKGVTKRVKGTVMLSCDYSTSTEELTSLRTYNQNOSKMVLALLP MGHTMONGSLPPKRPCLALSQLLVLIGLFYFCSGITPKSVTKRVKETVALSCDYNTSTBELTBLR1YWQKDSKAYLAILP MGHTMKNGSLPPKRPCLMLSQLLVLTGLPYPCSGITPKSVTKRVKETVMLSCDYNTSTBELTSLRIYWQKD8KMVLAILP MGHTMKWGBLPPKRPCLMLSQLLVLTGLFYPCSGITPKSVTKRVKETVMLSCDYSTSTBLTSLRIYNQKOSKMVLAILP mghtimkwgsippkrpcinisqilvltggifypcsgitpksytkryketvmlscdyntsteeltseriymqoosnavlailp mghtmkragslppkrpccalsqllvltglpypcsgttpksvtkrvketvmlscdyntstrelitslriyaqkdskavlallp mghtmkngslppkrpclnlsqlivligleypcsgitpksvtkkvketvmlscbeltslriymqkdskmylald mchtmichgslppkrpclmlsqllvltglfpypcsgttpksvtkrvketvmlscdyntstbeltslrtymqkdbkrvlatlp MGHTMKWG9LPPKRPCLWL9QLLVT/MGLFYFC9GTTPKSVTKRVKETVMLSCDYNTSTEBLT9LR1YMQKDSKWYLAILP MGHTMKMGSLPPKRPCLALSQLLVT.YQLFYPCSGITPKSYTKRVKETVMLSCDYNTSTEBLTSLRIYAQYDSKAVLAILP MGHTMKWGSLPPKRPCLNLSQLLVLTGLFYPCSGITPKSVTKRVKETVMLSCDYNTSTEELTSLAIYNQKDSKRVLAILP mghtmkwgslppkrpclalsqllvlfglpypcsgitpksvtkrvketvmlscdyntstebltblriywqkdskavlailp Extracellular domain (ECD) Signal sequence -3 3 Ξ Ξ 3 3 3 222222 (1) Ξ ਰ (2) Ξ 33 3 3 3 Ξ Ξ 333 Ξ Ξ Ξ Ξ 3 SEQ:192_cd28D2-3 SEQ:193_cd28D2-9 SEQ:194_cd28D8-9 SEQ:195_cd28D11-1 SEQ:196_cd28D12-5 SEQ:197_cd28E10-6 SEQ:216_cd2888-6 SEQ:217_cd2889-6 SEQ:218_cd2883-1 SEQ:219_cd2883-5 SBQ:204_cd28G1-9 SBQ:205_cd28H4-3 SEQ:206_cd28H11-3 880:283 CD288P Con SEQ:188_cd28C7-3 SEQ:189_cd28C8-6 SEQ:190 cd28c9-5star SEQ:199_cd28F9-2 SEQ:199_cd28F8-4 SRQ: 200 cd28F10-2 SEQ: 201 cd28F12-5star SEQ: 202_cd28G2-8 SEQ: 203_cd28G1-5 SEQ: 214_cd28E2-58tar SEQ:187_cd28C6-1 SEQ:191_cd28C2-4 SEQ: 207_cd2BH6-6 SEQ: 208_cd2BE2-4 SEQ: 209_cd2884-5a SEQ: 210_cd28A2-5a SRQ:211_cd2884-58tar SEQ:212_cd28D5-6 SEQ: 213 cd28D10-4 SED: 215_cd28B5-2 SBQ: 220_cd28F3-6 SEQ: 221_cd28F11-8

Fig. 2B

GDMNIWPEYKNRTIFDITMNLSIVTLALRPSOEGTYECVVLK-YEKDAFKREHLARVTLSVKADFPTPSISDPEIPTSNI GOVEVWPBYKNRIPPDIINNISLMILALRISDKGTYTCVVQK-NRNGSPRREHLTSVTLSIRADSPVPSITDIGHPAPNV govevnpryknrtfpdiinnlslmtlalrlsdkgtytcvvok-nengsprrehltsvylsiradfpvpsitdighpapnv GKVQVWPBYKNRTITDMNDNPRIVILALRLSDSGTYTCVIOKPVLKGAYKLEHLASVRLMIRADPPVPTINDLGNPSPNI GKVQVWPBYKNRTITOMNDNPRIVILALRLSDSGTYTCVIQKPDLKGAYKLBHLTSVRLMIRADPPVPTINDLGNPSPNI GKVQVWPBYKNRTITOMYDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLRHLASYRLMIRADFPVPTINDLGNPSPNI GKVQVMPBYKNRTITDMNDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLEHLASVRLMIRADFPVPTINDLGNPSPNI gkvqvmpeyknrtitdmydnprivilalrlsdsgtytcviqkpvlkgayklehlasvrlmiradfpvptindlgnpspyi gkvqvmpeyknrtitdmdnprivilalrlsdsgtytcviqkpvlkgayklehlasyrlmiradfpvptindlgnpspni GKVQVMPEXKNRTITDMNDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLEHLASVRLMIRADFPVPTINDLONPSPNI GKVQVNPEXKNRTITDMNDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLEHLASVRLMIRADFPVPTINDLGNP9PNI GKVQVWPBYKNRTITDMNDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLEHLASVRLMIRADFPVPSITDIGHPAPNV GKVQVWPBYKNRTITDMNDNPRIVILALRLSDKGTYTCVVQK-NENGSFRREHLTSVTLSIRADFPVPSITDIGHPAPNV GKVQVMPEYKNRTIPPDIINNLSLMIIALRLSDKGTTTCVVQK-NENGSFRREHLTSVTLSIRADPPVPSITDIGHPAPNV gkvovmpevknrtitdmndnprivilalrlsdkgtytcvvokpvlkgayklehltsvrlmiradppvptindlgnpspni gkvovpexkarti tomdaprivilalrisdsgtytoviokpvikgayklehlasvrlmiradppvptindlgnpspni gkvqvmpryknrtitdmvdnprivilalrlsdsgtytcviqkpvlkgayklehltsvrlmiradppvptindlgnpspni gkvqvwpeyknrtitdmndnprivilalrlsdggtytcviqkpvlkgayklehlasvrlmiradppvptindlgnpspni gqvevwpeyknrti tomndnpriv ilalrlsdsgtytcv i okpylkgayklehlasvrlmi radfpvpt indlgnpspni gkvqvwpeyknrtitdmndnprivilalrpsdsgtytcviqkpvlkgayklehlasvrlmiradfpvptindlgnpspni gkvqvwpeyknrtitdmndnprivilalrlsdggtytcviqkqvlkgayklehltsvrlmiradfpvptindlgnpspni GKVQVMPBYKNRTITDMNDNLRIVILALRLSDSGTYTCVIQKPDLKGAYKLRHLTSVRLMIRADPPVPTINDLGNPSPNI gkvqvmpbynnrtitdmodnprivilalrlsdsgtytcviqkpvlkgayklbhlasyrlmiradfpvptindlgnpspni gkvovmpryknrti tomndnprivilalrledsotytcvi okpvlkgayklehltsvrlmiradppvptindlgnpspni GKVQVWPBYKNRIITDMNDNPRIVILALRLSDSGTYTCVIQKPVLKCAYKLEHLTSVRLMIRADFPVPTINDLGNPSPNI gkvovypeyknrtitdmndnprivilalrisdsgtytcviokpvlkgayklehlasvrlmiradffvptindlgnpspni gkvovmpeyknrtitdmndnprivilalrlsdsgtytcvvok • nengsprrehltsvtgiradfpvpsitdighpapnv gkvovmpeykartitdandnprivilalalsdkgtytcviokpylkgayklehlasvrlairadppvptindlgnpspni GKYQV#PEYKNRTITDMNDNPRIVILALRLSDKGTYTCVIQKPVLKGAYKLEHLTSVTLSIRADPPVPSITDIGHPAPNV gkvqvwpbykartitdmadapprivilalrlsdsgtytcviqkpvlkaaxklehlasvrlmiradfpvptindlgnpspni gkvoumpeyknrtitomdnprivilalrisdsgtytcviokpvlkoayklehltsvrlmiradffvptindlgnpspni GKVQVMPBYKNRTI TIMNDNPRIVILALRLSD3GTYTCVIQKPVLKGAYKLEHLTSVRLMIRADPPVPTINDLGNPSPNI gkvovmpryknrtitdnndnprivilalalalsdegtytoviokpvlkgayklehltsvrlmiradppvptindlgnpspni gkvqvmpeyknmtitdnndnpriv1lalrlsdsgtytcviqkpdlkgayklehltsvrlmiradppvptindlgnpspni CKVQVMPBVKNRTITDMNDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLBHLTSVRLMIRADFPVPTINDLGNPSFNI Extracellular domain (ECD) (42) (81) (81) (81) (81) (81) (81) (81) (81) (81) (81) (34) (81) (81) [81) (81) [81] (81) 81) (81) (81) (18) (81) (81) [81) (18) (36) (81) (81) (83) (81) 81) (81) (81) SEQ: 052_R2_CD28BP-1 SEQ: 053_R2_CD28BP-2 SEQ: 054_R2_CD28BP-3 SEQ: 055_R2_CD28BP-4 SEQ: 056_R2_CD28BP-4 SEQ: 056_R2_CD28BP-5 SEQ: 058_R2_CD28BP-6 SEQ: 059_R2_CD28BP-8 SEQ: 060_R2_CD28BP-8 SBQ: 061_R2_CD28BP-12 SBQ: 064_R2_CD28BP-13 SEQ: 065_R2_CD28BP-14 SEQ: 066_R2_CD28BP-15 9EQ:179_cd28A8-4 SEQ:180_cd28A8-6 SEQ:181_cd28B2-8 SEQ:182_cd28B4-3 SEQ:183_cd28B6-3 SEQ:184_cd28b6-6 SEQ:050_R1_Clone_118 SEQ:051_R1_Clone_126 SEQ: 278_Human_B7-1 SEQ:060_R2_CD28BP-9 SEQ:061_R2_CD28BP-10 SEQ:062_R2_CD28BP-11 SEQ:067_R2_CC288P-16 SEQ:068_R2_CC28BP-17 SEQ:177_cd28A6-9 SEQ:178_cd28A6-1 SBQ: 048_R1_Clone_71 SEQ: 049_R1_Clone_84 SEQ:175 cd28a4-5star SEQ:176_cd28A4-9 SE0:185_cd28b8-5star SEQ:174 cd28A12-5 SEQ:186 cd28c11-5

Fig. 2C

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SBQ:187_cd28C6-1	(81)	GKVOVNPEYKNRTITDMNDNPRIVILALRLSDSGTYTCVIQKPVIKGAYKLEHLASVRLMIRADFPVPTINDLGNPSPNI
SEQ:188_cd28C7-3	[81}	GKVQVWPEYKNRT1TDMONPRIVILALRLSDSGTYTCVIQKPDLKGAYKLBHLFSVRLMIRADFPVPSITDIGHPAPNV
SEQ:189_cd28C8-6	(81)	GKVQVWPEYKNRTITDMNDNPRIVILALRLSDBGTYTCVIQKPVIKGAYKLEHLASVRLMIRADFPVPTINDLGNPSPNI
SEQ: 190_cd28c9-5star	(8)	GKVQVWPEYKNRTITDMNDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLHHLASVRLMIRADFPVPTINDLGNPSPNI
SEQ:191_cd28C2-4	(78)	GOVEVAPEXKNRTITDMODRELVILALRLSDSGTYTCVIQKPVLKGAXKPEHLASVRLMIRADFPVPTINDLGNPSPNI
SEQ:192_cd28D2-3	(81)	GKVQVWPEYKNRTITDMONDRIVIQALRLSDSGTYTCVIQKPVLKGAYKLBHLASVRLMIRADFPVPTDLGNPSPNI
SEQ:193_cd28D2-9	(81)	GKVQVMPEYKORTITDMODNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLBHLTSVRLMIRADFPVPTINDLGNPSPNI
SEQ:194_cd28D8-9	(81)	GKVQVWPEYKNRTITDMONPRIVILALRLSDSGTYTCVIQKPVLKGAYKLBHLTSVRLMIRADFEVPTINDLGNPSPNI
SRQ:195_cd28D11-1	(81)	GKVQVWPEYKORTITDMONDPRIVILALALSDSGTYTCVVQK-NRNGSPRRRHLTSVTLSIRADFPVPSITDIGHPAPNV
SRQ:196_cd28D12~5	(81)	GKVQVWPEYKNRTITD#NDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLRHLASVRLMIRADFPVPSITDIGHPAPNV
SEQ:197_cd28E10-6	(8)	GKVQVMPEYKORTITDMODNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLBHLASVRLMIRADFPVPTINDLGNPSPNI
SEQ:198_cd28F7-2	(81)	GKVQVWPEYKORTITDPKNDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLEHLASVRLMIRADFPVPTINDLGNPSPNI
SEQ:199_cd28F8-4	(81)	GKVQVWPEYKORTITDAGNDVPRIVILALALALSDSGTYTCVIQKPVLKGAYKLBHLASVRLMIRADFPVPIIVDLGNPSPNI
SEQ: 200_cd28F10-2	(81)	GKVQVWPEYKORTITDWIDDPRIVILALRLSDSGTYTCVIQKPDLKGAYKLGHLTSVRLMIRADFPVPSITDIGHPAPNV
SEO:201_cd28F12-5star	(81)	GKVQV4PEYKORTITDMODPRIVILALRLSDSGTYTCVIQKPDLKGAXKLAHLASVRLMIRADFPVPSITDIGHPAPNV
SEQ: 202_cd28G2-8	(81)	GKVQVMPBYKNRTITDANDNPRIVILALALSDSGTYTCVIQKPVLKGAYKLBHLASVRLMIRADFPVPSINDLGNPSPNI
SEQ:203_cd28G1-5	(81)	GKVQVMPEYKNRTFPDIINNLSLMILALRLSDKGTYTCVVQK-NRNGSFRREHLTSVTLSIRADFFVSSITDIGHPAPNV
SBQ:204_cd28G1-9	(81)	GKVQVAPEYKNRTITDMIDNPRIVILALRISDSGTYTCVIQKPVLKGAYKLEHLTSVRLMIRADFPVPSITDIGHPAPNV
SEQ: 205_cd28H4-3	(81)	GRVQVMPEYKORTI TDMADNPRI VILALRISOSGTYTCVI QKPVLKQAYKLBHLASVRLMI RADFPVPTI NDLGNPSPNI
SEQ: 206_cd28H11-3	(81)	gkvovapeyknrtítdmndnprivilalrlsdsgtytcviqkpvikrayklehlasvrlmiradfpvptindlgnpspni
SEQ:207_cd28H6-6	(81)	GKVQV#PBYKONRTITDMNDNPRIVILALRLSDSGTYTCVIQKPVLKQAYKLEHLASVRLMIRADFPVPTINDLGNPSPNI
SEQ: 208_cd28E2-4	(81)	GKVQVAPRYKNRTI TDANDNPRI VI LALRLSDKGTYTCVI QKPVLKGAYKLRHLASVRLMI RADFPVPTINDLGNPSPNI
SRQ: 209_cd28B4-5a	(81	gkvovapryknrti tomndnpri vi lalklsdsgtytcvi okpylkgay klehlasvrlmi radffvptindlgnpspni
SEQ:210_cd28A2-5a	(81)	GKVQV#PBYKNRTITDMNDNPRIVILALRLSDSGTTTCVIQKPDLKGAYKLRHLASVRLMIRADFPVPSITDIGHPAPNV
SEQ:211_cd28B4-5star	(81)	GKVQV#PBYKWRTITDMXDNPRIVILALRLSDKGTYTCVVQKPDLKGAYKLBHLASVRLMIRADFPVPSITDIGHPAPNV
SBQ:212_cd28D5-6	(81)	GRVQV#PEYKWRTITDMNDNPRIVILALRLSBSGTTCVIQKPVLKGAYKLRHLTSVRLMIRADPPVPTINDLGNPSPNI
SEQ:213_cd28D10-4	(81)	GRVQVWPBYKNRTITDMNDNPRIVILALRLSDKGTYTCVVQK-NENOSFRRBHLTSVTLGIRADFPVPGITDIGHPAENV
SEQ:214_cd28B2-5star	(81)	GRVQV#PBTKORTITDMNDNPRIVILALRPSD9GTTTCVIQKPVLKGAYKLRHLASVRIMIRADFPVPTINDLGNPSPNI
9EQ:215_cd28E5-2	(81)	GRVQV#PBYNNRTITDMADNPRIVILALRLSDSGTYTCVIQKPDLKQAYKLEHLASVRLMIRADFPVPTINDLGNPSPNI
SEQ:216_cd28B9-6		GKVQVMPBYKKNRTITDMANDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLRHLTSVRLMIRADFPVPTINDLGNPSPNI
8EQ:217_cd28E9-6		GKVQVWPBTKWRTITDMVDNPRIVILALRLSDKGTYTCVIQKPDLKQAYKLEHLASVRLMIRADFPVPTINDLGNPSPNI
8EQ:218_cd28F3-1		GKVQVMPBYKNRTI IDMNDNPRI VI LALRLSDSGTYTCVI QKPDLKQAYKLEHLI SVRLMI RADFFVPTI NDLGNPSPNI
SEQ:219_cd28F3-5		GKVQVMPBYNNRTITDMNDNPRIVILALRLSDSGTYTCVVQK-NENGSFRREHLISVTLSIRADFPVPSITDIGHPAFNV
SEQ:220_cd28F3-6	(81)	GKVQVWPRYKNRTITDMNDNPRIVILALRLSDSGTYTCVIQKPDLKGAYKLEHLTSVRLMIRADFPVPTINDLGNPSPNI
SEQ: 221_cd28F11-8	(81)	GKVQVWPBYKNRTITDMNDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLEHLTSVRLMIRADFPVPTINDLGNFSPNI
SEQ:283_CD28BP_Con	(81)	GKVQVMPBYKMRTITDMNDNPRIVILALRLSDSGTYTCVIQKPVLKGAYKLEHLA9VRMIRADPEVPTINDLGNPSPNI

Fig. 2D

240 (158) RRIICSTSGGFPBPHLSWLBNGBELNAINTTVSQDPETELYAVSSKLDFNMFTNHSFMCLIKYGHLRVNQTFNWTTKQB kri rcsasogfprpamedgrelnavnttvdodldtelygvsseldfinvtnnhsivcli kygelgvsoi fpwskpkof rrlicstsggpprphlyrlangbelnatnttvsqdpgtelymissbldfnvtnnhsivclikygelsvsqifpwskpkqr rrlicstsggpppphlymlengeelnatnttvsqdpgtelymisseldfnvtnnhsivclikygelsvsqi*ff*wskpkqe rrlicstsggpppphlymlengerlnatnttlodpetycymissrldfinvtnnhsivclikygelsvsoifpmskpkoe rrlicstsggpprphlymlangerinatnttvsqdpgtelymisseldfnvtnnhsivclikygelsv3qifphskyg rrlicstsggppphilchlengeblnatnttvsqdpgtelymisseldfnvtnnhsivclixygelsvsgippmskpkqb rrlicstsggppppplimlengerinatvitvsqdpgtelymisseldfnvtnnhsivclikygelsvsqippmskpkqb rrlicstsogpprphlymlengeelnativtgoppgtelymisseldfinvtynhsivclikygelsvsgippmskrob kri rcsasggppeprlahmedgeblanavattvdodlotelysvssblosnatannsivcli kygblsvsoi ppaskpkob rrli cstsggfprphlymlængbblnatnitlsodpetklymissbldfnmtsnhsflclykygdlitysotfymobskpt kri rcsasgofpeprlammedgbelnavnttvdoldtelysvsseldfnvtnnhsivcli kygelsvsoi fpwskpkoe rrlicstsggpppphlymlengeelnatittvsgopgtelymisseldfnvtnnhsivclikygelsvsgippmskdkge rrlicstsggpprphlymlangebinativtysodpgtelymisseldfnytnnhsivclikygelsvsgifpmskpkob rrlicstsggpprphlywlengeblnatwttisqdpgtelymisseldfrvtnnhsivclikygelsvsqippmskpkqe kri rcsasggppeprlahmedgeblnavnttvdooldtelysvesbldenvtnnhsivclikygblsvsoifppskpkob rrlicstsgopprphlywlengeblnathttvsodpotblymisseldfnytnmhsivclikygblsvsolpprskpkob RRLICSTSGOPPEPRLAMMEDGEBLNAVNTTVDQOLDTBLYSVSSELDPNVTNNHSIVCLIXYGBLSVSQIPPNSKPKQB rrlicstsggpprphlywlengeblantattvsqdpgtrlymissrldfavtanahsivclikygblsvsqippaskpkqb rrlicstsggpppphphlywlengeblnatnttvsqdpgtblymisbbldpnytnnhsivclikygblsvsqippmskpkqb rrlicstsgopprphlywlendzelnatnttvsgopgtelymisseldpnytnmsivclikygelsvsgippmskpkge kri rcsasgdppppplammedgeblinavnttvdqdldtblysvsseldpnvtnnhsi vcli kygelsvsqi ppmskpkqe rrlicstsggfprphlywlengeelmatnttvbqdpgtelymisseldpnytnnhsivclikygellvsqi*fpa*skpxqe rrlicstsggfprphlymlengeelnatnttsqdpbtydymisseldpnytnhsivclikygelsysqifpmskpxqe rrlicstbogfprphlymlengeelnatnttvsodpetklymisseldpnytnnhsivclikygelsvagifpmskpkoe rrlicstsggfpr*phly*wlengbelnativitysqdpgtelymisseldfnytnnhsivclikygelsv3qifpmskpkqb rrlicstsggfprphlymlengebinatnttvsqdpbtrlymisseldfnytnnhsivclikygelsvsqifpmskpkqr rrlicstsggpppphlywlengeblnatnttvsqdpgtblymisseldpnvtnnhsivclikygelsvsqifpmskpkqb kr i rcsasogfpepplammedgeblinavnttvdodldtblysvsseldfinvtnnhbivcli kygelsvsqi fpmskpkob rrlicstsggfprphlymlengeblaatntttsqdprtxlymisseldfnatsnhsflclykygdltysqtfymqeskpt Krircsasggfprpammedgeelmavnttvdqdldtrlysvsseldfnatnnhsivclikygelsvsqifpmskpkqe rrlicstsggpprphlymlengebimatnttsqdpgtblymlsseldfnvtnnhsivclikygelsvsqifpmskpkqe rrlicstsggpppphlymlengeelnatnttvsqdpgtelymisseldfnvtnnhsivclikygelsvsqippmskpkge rrlicstsggpprphlymengerinatnitlsqdprtkiymisseldfnmtsnhsflclykyddlivsqtfymoesydt rrlicstsggfprphlymlengerlmatnttvsqdpgtrlymisseldfnytnahsiaclikygelsvsqi*fp*askpkqe Extracellular domain (ECD) 161 (191) (157) (157)161) 161) 161) (161) (181) (191) (191) (158) (191) (191) 161) 161) 161) (161) 160} 161) (160) 161) 160) 161) 161) (161)161) 161) 161) 161} 161) 161) 161) 161) SEQ: 053_R2_CD28BP-2 SEQ: 054_R2_CD28BP-3 SEQ: 055_R2_CD28BP-4 SEQ: 056_R2_CD28BP-5 SEQ: 057_R2_CD28BP-6 SEQ: 057_R2_CD28BP-6 SEQ: 059_R2_CD28BP-8 SEQ: 060_R2_CD28BP-9 SEQ: 061_R2_CD28BP-10 SEQ: 061_R2_CD28BP-11 SEQ: 061_R2_CD28BP-12 SEQ: 064_R2_CD28BP-13 SEQ: 064_R2_CD28BP-13 SEQ:278_Human_B7-1 SEQ:049_R1_Clone_84 SEQ:050_R1_Clone_118 SEQ: 067_R2_CD28BP-16 SEQ:177_cd28A6-9 SEQ:178_cd28A6-1 Clone 126 CD28BP-17 SEQ:174 cd28A12-5 SEQ: 175_cd28a4-5star SEQ:176_cd28A4-9 SEQ:048_R1_Clone_71 SEQ: 052_R2_CD28BP-1 SEQ:179_cd28A8-4 SEQ:180_cd28A8-6 SEQ:181_cd28B2-8 SEQ:182_cd2834-3 SRQ:184_cd28b6-6 SEQ:186 cd28c11-5 SEQ: 066 R2 CD28BP-15 cd28B6-3 SEQ:185 cd28b8-5star SEQ: 183 SEQ:051 R1 SEQ: 068 R2

3.1.0

Fig. 2E



Fig. 2F

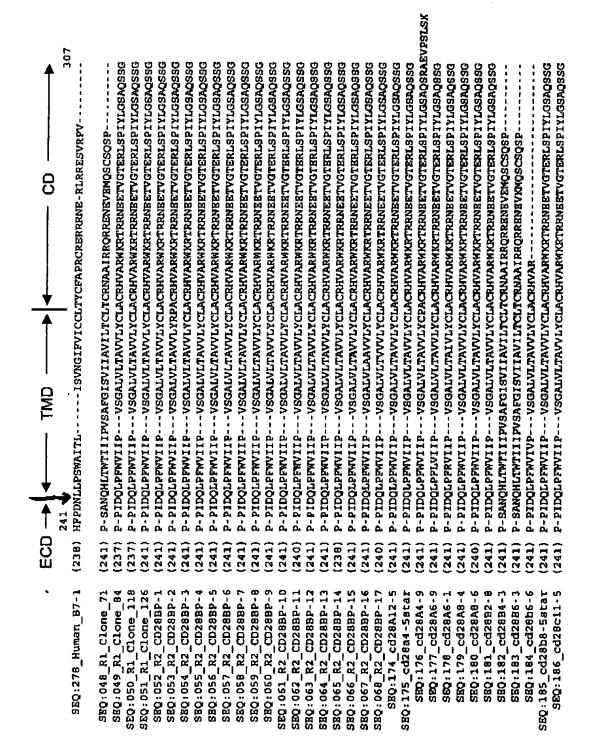


Fig. 2G

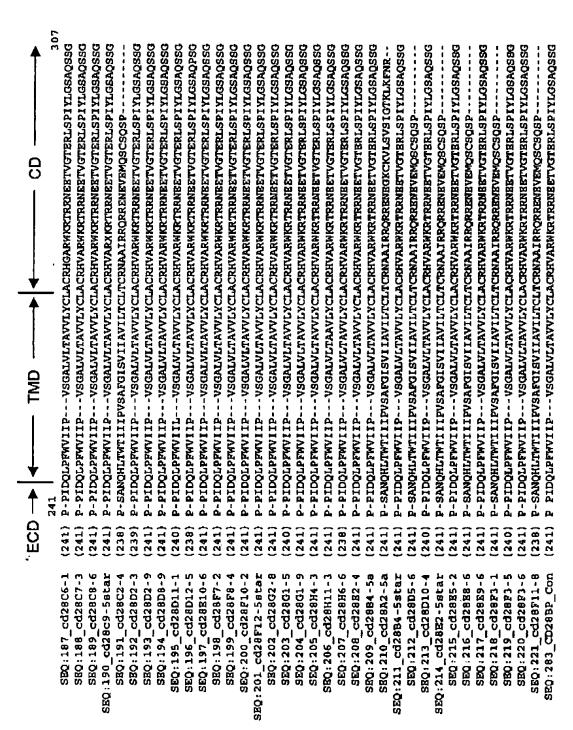


Fig. 2H

MGHTRRQGTSPSKCPYLNPFQLLV1AGLSHPCSQVIHVTKEVKEVATLSCGHNVSVEBLAQTRIYMQKBKKMVLTMMSGD Extracellular domain (ECD) Signal sequence

SEQ: 278_Human_B7-1

SEQ: 074_R2_CTLAMBP-5x2-10c SEQ: 075_R2_CTLAMBP-5x2-11d SEQ: 076_R2_CTLAMBP-5x2-12F SEQ: 077_R2_CTLAMBP-5x2-12F SEQ: 077_R2_CTLAMBP-5x2-2g SEQ: 079_R2_CTLAMBP-5x2-3c SEQ: 080_R2_CTLAMBP-5x2-4c SEQ: 080_R2_CTLAMBP-5x2-7b SEQ: 081_R2_CTLAMBP-5x2-7b SEQ: 082_R2_CTLA4BP-5x3-10e SEQ: 083_R2_CTLA4BP-5x3-11b SEQ: 084_R2_CTLA4BP-5x3-6f SEQ: 085_R2_CTLA4BP-5x4-11d SEQ: 087_R2_CTLA4BP-5x4-12c SEQ: 087_R2_CTLA4BP-5x4-1f SEQ: 089_R2_CTLA4BP-5x5-2e SEQ: 099_R2_CTLA4BP-5x5-6e SEQ: 090_R2_CTLA4BP-5x6-9d SEQ: 091_R2_CTLA4BP-5x6-9d SEQ: 091_R2_CTLA4BP-5x8-1f SEQ: 072_R1_CTEA4BP-13 SEQ: 073_R1_CTEA4BP-27 SEQ:069_R1_CTLA4BP-5 SEQ:070_R1_CTLA4BP-7 SEQ: 071_R1_CTLA4BP-11

MGHTRRQGISPSKCPYLKPFQLLVLAGLSHFCSGVIHVTKBVKEVATLSCGHNVSVBELAQTRIHWQKBKKMVLIMMSGD mgytrrogstspskcpylkrpqllvlaglshlcsgvihytnbvkevatlscghnvsgeblagtriywokbkkonvlimmygd mshtrrogtspskcpylkppollylaslshfcsgvinatkbykevatlsoghnvsvbelaqtriynokekkmyltmmsgd MGHTRRQGISPSKCPYLKPFQLLVLACLSHFC3GVIHVTKBVKEVATLSCGHNVSVEELAQTRIYWQKBKKMVLTMM3GD mshtrrogispsköpylmffollvlaslshfcsgvinvtkevkevatlscglnvsvbelaotriymqkekkmvlimmsgd mchttrogsisppkcpylappellvlaclshfcsgvihvtkbykevatlschnysybelactrihmokekkonvlimmscd MSHTRRQGISPSKCPYLKFFQLLVLACLSHFCSGVIHVTKEVKEVATLSCGHNVSVBELAQTRIHMQKEKKMVLTMMSGD mshtrrogispskcpylkfpollvlaslshfcsgvihvtkevkevatlscgnnvsvbelaqtrihmokekkkmvltmmsgd MGHTRRQGTSPSKCPYLKPFQLLVLACLSHPCSGVIHVTKBVKEVATLSCCHNVSVBELAQTRIHMQKEKKKVLTHMSGD mgytrrogstspskcpylkfpollvlaclshfcsgvihvtrrvkgyatlscomnvsvrelaotrihmqkekkkkvl*th*msgd mshtrrogtspskcpylkfpqllvlaslbhfcsgvihvtkbvkbvatlscqlnvsvbelaqtriymqkekkmvltmmsgd mshtrrogispskcpylnffrl Lvlaslshfcsgvihvtkevkevatlscghnvsvbelaqtrihmqkekkknvlymmggd mshtrrogtispskcpylkfpollvlaslshfcsgvihmtkgvkævatlscghnvsvbelaotriymokekkkkvvlimmsed mgytrrogispskcpylkffollvlaclshfcsovihvtkbykeyatlscomnysvbelaotriymokekknavltmmsod mshtrrqgispskcpylkppqilvlaclshfcsovihvtkbvkbvatlrcghnvsvbelaqtriymqkekkmvltmmbgd mghtrrogispskcpyllnfpollvlaglshfcsgvihvtkevkevatlscornvsveelaotriymokgod mghtrrogispskcpylkfpollvlacishicsgvihvtkevkevatlscolnvsvbelaotrihmokekknyvltmmsgd mghtrrqgtspskcpylkfpqllvlaglshfcsqvihvtxevkevatlscqhnvsveelaqtrihmqkekkmvltmmsqd mghtrrogtspskcpylkppollvmaclshfcsovihvtxbykbyatlscghnvsvbelaotrlymokekkonvlimmsod mghtrrogispskcpylkffqllvlaclshfcsgvihvtkbykbvatlscglmvsvbelaqtrihmqkekkkvltymmsdd MGHTRROGISPSKCPYLKFPQLLVLAGLPHLCSGVIHVTKEVKBVATLSCOHNVSVBELAQTRIHMQKERROMVLTMMSGD MSHTRRQGTSPSKCPYLKFFQLLVLAGLSHLCSGVIHVTKEVKBVATLSCGHNVSVBBLAQTRIHMQKEKKMVLTMM3GD MGHTRRQGISPSKCPYLNFFQLLVLACLSHFCSGVIHVTKEVKGVATLSCGHNVSVEBLAGTRIHMQKBKKMVLTMMSGD mghtrrogatspskcpyllnfpqllvlaclshfcsovihvtkevkevatlscghnvsveblaqtrihhokekkmvlltnmsgd MSHTRRQGTSPSKCPYLKFPQPLVLASLSHFCSGVIHVTKEVKRVATLSCGLNVSVBBLAQTRIYMGKGKKMVLTMMSGD MOYTRRQOTSPSKCPYLKFFQLLVLASLSHFCSGVIHVTKEVKEVATLACGHNVSVBELAQTPIYMQKBKKANVLTMMSGD MOYTRROGISPSKCPYLKFPOLLVLASLSHFCSGVIHVTKKVKGVATLSCGHNVBVBBLAQTRIHMOKEKOMVLTMMSGD MSHTQRQGISPSKCPYLNFFQLLVLASLSHFCSOVIHVTKEVKEVATLSCCHDVSVBBLAQTRIYMQKBKKONVLTMMSCED 3 3 3 3 3 Ξ Ξ 33 3 3 Ξ 3 $\widehat{\Xi}$ 33 33 Ξ 33 Ξ Ξ 33 33 SEO:222 ctla5x9d10 SEQ: 225_ctla5x5c10 SEQ:223_ctla5x6f6 SE0:224 ctla5x5h12

MSHTRRQDISPSKCPYLKPFQLLVLAGLSHPCSGVIHVTXBVKGVATLSCGHNVSVEBLAQTRIHWQKEKKMVLIMMSGG MSHI RRQGI SPSKCPYLNFPQLLVLACLSHFCSGVI HVTKBVKEVATLSCGHNVSVRELAQTR I YNQKEKKNVL,TVMSGD MSHTRRQGTSPSKCPYLKFPQLLVLASLSHPCSGV1HMTKBVKBVATLSCGPNVSVBELAQTR1YWQKEKMYVL7MMSGD MGYTRROGTSPSBCFYLKFFQLLVLAGLSRFCSGVIHMTKGVKGVATLSCGLAVSVBELAGTRIHNQKEKYMVLTMMSGD mshtrrogispskcpylkfpollvlasishfcsgvihvikavkgvatiscghnvsvrblaagtriynokekkmvlipmsgd MGHTRRQG18PSKCPYLKFFQLLVLASLSHFCSGV1HVTKEVKTVATLSCGLAVSVBELAQTR1YMQKEKKAVVLTFMSGD MGYTRRQGT8PSKCPYLNFFQLLVLASLSHPCSGVIKVTKEVKEVATLSCGHNVPVBELAQTR1YWQKEKNOVVLTM9/SGD MGHTRRQG1SPSKCPYLKFPQLLV1ACLSHFCSGV1HVTKGVRGVATLSCGHRVSVBELAQTR1YWQXDKRAVLTM9KSG MGHTRRQGTSPSKCPYLKFPQLLVTAGLSHFCSGV IHVTKEVKEVATLSCGHNVSVEELAQTR IHWQKEKKOYVLTWGSG MGHTRRQGI 8PSKCPYLKFPQLLVLACLSHFCSGV I YYTKBVKBVATLSCGHNVSVBELAQTRI YWQKEKKMVL I NAHSOD mohtrrogispskcpylkffollvlaglshpcsgvihvtkrykgykgvatlscghnvsvrblagtrihnokekkmvlimmsgd MGYTRRQGTSPSKCPYLAFFQLLVLASLSHFCSGVIHVTKSVATLSCGHNVSVZELAQTRIHQKEKGAVLTBASGÐ moytrrogispskcpylkfpolivlaglshpcsgvihytkavkbyatlscghnvsveelaqtrihmokekkmvltraysd mshtrrogispskcpylkffollvlagishfcsgvihvtkevkevatiscghnvsrerlagtriyngkeknovlipmsgd mghtrrogi bpskcpylkfrollvylagishpcsgv ihvtkbvkevatiscgiavsveblaqtr ihrokeknomvltvensgd MGYTRRQGISPSKCPYLKFFQLLVLACLSHFCSGVIHVTKBVKEVATLSCGHNVSDEELAQTRIHWQKEKOOVLTPMSGD MGYTRRQGISPSKCPYLKFFQLLVLAGLSHLCSGVIHOTKBVKBVATLPCGHNVBVBELAQTRIHNQKEKGOVLTMSSDD MGHTRRQGISPSKCPYLKFPQLLVTAGLSHICSGVIHPKTKGVRTLSCGHDVSVEELAQTRIYPQKEKROVLTDMSGD MGHTRRQGISPSKCPYLKFFQLLGLACLSHFCSGVIHVTKBVKEVRTLSOGHNVSVEBLAQTRIHWQKEKNOVVLTRASGD MGHTRRQGTSPSKCPYLKFFQLLVLALAGLSHFCSGV IHVTXGVXGVATLSCGHRVSVEBLAQTRI YMQKEKKGNVLIMMSGD MSHTRRQGISPSKCPYLKFRQLJVIASJSHFCSGVIHVTKBVKEVATYSCGHRVBVEELAQTRIYWQKEKGAVLTMMPGD MGYTRRQGTSPSKCPYLKFFQLLVLACLSHFCBGVIHVYXGVKEVATLSCGHRVSVBBLAQTRI YRQKEKGOVLIMMSGD MGHTRRQGTSP&KCPYLAVFYQLLVLACLSHPCSGVIHVTKBVKBVATLSCGHRVSVEBLAQTRI YMQKEKROVZJTMMSGD MGHTRROGTSPSKCPYLKFPQLLVTAGLSHLCSQVIHVTKBVKEVATLSCGHNVSVBELAOTRIYNOKBKKNVLTYMSGD MSHTRRQGISSEKCPYLKFFQLLVLACLSHFCSGVIHVTKKVKEVATLSCGHIVVSVEELAQTRIYWQKGKOMVLTFMSGD mshtrrqgi spskcpylnffrllvtaslshfcsgv i hvtkevkevatlscghnvsveelaqtr i hnokekkmv lipmsgd MSHTRRQGISPSKCPYLXFYQLLVIACLSHPCSGV IHVTKBVKBVATLSCOHNVSVEBLAQTR I HWQKEKGMVLTFMSGD MGHTRRQGISPSKCPYLKFOLLVLACLSHFCSGVIHVTKEVKBVATLSCGMNVSVEBLAQTRIHWOKEKGMVLTMM3GD Extracellular domain (ECD) Signal sequence 3 33 3 Ξ Ξ ਜ Ξ 3 Ξ 33 SRO: 246_ctla2x2fl SRO: 247_ctla5x4hl SRO: 248_ctla5x4al SEO: 249_ctla5x2fl SEQ:235_ctla2x4g9 SEQ: 232_ctla5x2b1 ns SEQ: 233_ctla5x1f1 SEQ: 234_ctla5x1d7 SEQ:236_ctla2x4a6 SEQ: 239_ctla2x198 SEQ: 240_ctla2x1f10 SEQ:242_ctla2x1h12 SEQ:243_ctla2x1e2 SEQ:227_ctla5x3c4 SEQ:228_ctla5x3c3 SEQ:231_ctla5x2b7 SEQ:237_ctla2x2f3 SRQ:238 ctla2x2f12 SBQ:241_ctla2x1c9 SEQ: 244_ctla2x1c4 9EQ:250_ctla5x2e12 SEQ: 286_CTLA4BP_CON SEQ: 230_ctla5x2d7 SEQ:245 ctla2x1b12 SEQ:251_ctla2x4h11 SEQ:226 ctla5x3e8 SBQ: 229 ctla5x2h11

Fig. 3B

		Extracellular domain (ECD)
SBO:278_Human_87-1	(81)	91 Minpeyknrtifditnnlsivilalrpsdegtyecvvlkyekdapkrehlabvilsvkadfptpsisdfeiptsnirri
SEQ: 069_R1_CTLA4BP-5	(81)	MNIWPEYKNRTIFDITNNLSIVILALRPSDEGTYECVVLKYEKDAPKREHLAKVTLSVKADFPTPSISDFEIPPSNIRRI
SEC:071 RI CTLA4BP-11	(81) (81)	MALWPEYKARTIFDITARLSIVILALRPSDEGTYECVVLKYBKOAPKREHLAKVMLSVKADFPTPSITDFBIPPSNIRRI MAIWPEYKARTIFDITARLSIVILALRPSDEGTYECVVLKYBKOAPKREHLAKVMISVKADFPTPSITTDFRIDGANIPPT
72_R1_CTLA4BP-13	(81)	MIWPEYKARTIFDITANLETVILALAPSDEGTYECVVLKYBKDAPKREHLABYTLSVKADFPTPSISDPRIPTANTRFI
SEQ: 073 R1 CTLA4BP-27	(81)	MNIWPEYXNRTIFDITNNLSIVILALRPSDEGTYECVVLKYBKDAPKREHLAGVMLSVKADPPTPSISDFRIPPSHIRRI
BEQ: 074_R2_CTLA4BP-5x2-10c	(81)	MNIWPEYKNRTIFDITNNLSIVILALRPSDEGTYECVVLKYBKDAPKREHLAEVMLSVKADPPTPSITDPBIPPSNIRRI
CTLA4BP-5x2-11d	(81)	MNIWPEYKNRTIFDITNNLSIVILALRPSDEGTYECVVLKYBKDAFKREHLAGVMLSVKADFPTPSITDFBIPPSNIRRI
SEQ: 076_R2_CTLA4BP-5X2-12F	(81)	MNIWPEYKNRTIFDITNKLSIVILALRPSDEGTYECVVLKYEKDAPKREHLABVTLSVKADFPTPSITDFBIPPSNIKRI
2_CTLA4BP-5x2-2g	(81)	mniwpeymrtifoltnnlsivilalrpsdbgtyecvvlkybndapkrehlagvmlsvkadpptpsitdfbifsnirri
SEQ: 078_R2_CTLA4BP~5x2-3c	(81)	MNIWPEYMNETIFDITHNESIVILALRPSDEGTYECVVLKYBKDAFKREHLAEVMLSVKADPPTPSISDFEIPTSNIRRI
2 CTLA4BP-5x2-4c	(81)	NNIWPEYKNRTIFDITNNLSIVILALRPSDEGTYECVVLBYEKDAPKREHLABVMLSVKADPPTPSISDPBIPPSNIRRI
SBQ: 080_R2_CTLA4BP-5x2-75	(81)	MAIWPEYKARTIFDITHNLSIVILALRPSDEGTYECVVLKYEKDAPKREHLABVTLSVKAGPPTPSITDFBIPPSNIRRI
SEQ: 081_R2_CTLA4BP-5x2-8c	(81)	MINPEYKNRTIFDITNILSIVILALRPSDEGTYECTVLKYEKDAFKOEHLAEVALSVKADPPPSITDFEIPPSNIRRI
SEQ:082_R2_CTLA4BP-5x3-10e	(81)	MNIMPEYKNRTIFDITMNLSIVILALRPSDEGTYECTVLEYEKDAFKREHLAEVTLSVKADPPPBISDPBIPPSNIRRI
CTLA4BP-5x3-11b	(81)	MNIWPEY MONTIFOTTNN LSIVILALRS SORGIY ECVVLKY EKDAFKREHLAEVTLSVKADFPTPSITOPEIPPSNIRRI
2_CTLA4BP-5x3-6f	(81)	MNIWPEYRNRTIFDITUNLSIVILALRPSDEGITECTVILEYEKDAFKREHLAEVMLSVKADFPTPSISDFEIPTSNIRRI
SEQ:085_R2_CTLA4BP-5x4-11d	(81)	MNIWPEYMMTI FOITNNLS IVILALRPSDEGTYECVVLKYDKDAFKRBHLABVTLSVKADPPTPS1SDPEIPPSNIRRI
CTLA4BP-5x4-12c	(81)	MNIWPEY MORTIFOLTUN LSIVILALR PSDEGIY ECVVLKY EKDAFKREHLAG WILSVKADF PTP81SDPEIPPSNIRR L
22_CTLA4BP-5x4-1f	(81)	MNIMPEYRWETIFDITUNLSIVILALRPSDEGITFECVVLKYEKDAFKREHLAEVMLSVKADFFTP919DFE1PTBNIRRI
22_CTLA4BP-5x5-2e	(81)	MNIWPBYRNRTI FOITUNLSIVI LALRPSOBGTYECTVLKY EKDAFKRBHLAGVMLSVKADFPTPSI 9DFEI PPSNIRRI
R2_CTLA4BP-5x5-6e	(81)	mnimprymmtifditnnlsivilalrpsdegtyecvylkyekdafyrehlarmlsvkadfftrsi td felppsnirri
12_CTLA4BP-5x6-9d	(81)	MNI WPEYRWRTI FOI TRNILSI VILLALR PSOBGIYBCVVLKY EKDAFKREHLAEVMLSVKADFPTPSI SDFEI PTSNIRRI
SEQ:091_R2_CTLA4BP-5x8-1f	(81)	MNIWPRYRMTIFDITUMIAIVILALRPSDEGTYECVVLKYEKDAFKREHLAEVMLSVKADPPTP91TDFEIPPSRRI
2_CTLA4BP-5x9-12c	(81)	MNIWPEYRNRTIFDITUNISIVILALRPSDEGTYECVVLKYEKDAFKREHLAEVMLSVKADF9TP91TDF91PPSINIRRI
SBQ: 222_ctla5x9d10	(81)	MNIMPEX RONTIFOLTUNG SULLALR PSDEGIYECVVLEY EKDAF KREHLA EVMLSV KADPPP919DF 19DF 1PPSNIRRI
SEQ:223_ctla5x6f6	(81)	MNIMPRYRMRTIFOITHNISIVILALRPSDEGTYECVVLKYEKDAFKREHLAEMLSVKADPPTPSITDFEIPPSNIRRI
SBQ:224_ctla5x5h12	(81)	MNINPEXKNRTIFDITNNLSIVILALRPSDEGTYECVVLKYEKDAFKREHLAEVMLSVKADPPTPSISDFSIPPSNIRRI
SEQ:225_ctla5x5c10	(81)	MNIMPBYKNRTIFDITNNLSIVILALRPSDEGTYECVVLEYEKDAFKRBHLAEVTLSVKADPPTPSITDFEIPPSNIRRI

Fig. 3C

MNI WPEYKORTI FDITMNLSIVII ALRPSDBGTYSCVVLKYEKOAFKREHLAEVMLSVKADFPFPSISDFEI PPSNIRRI MNIWPEHKNRTI FDITINNLSIVILALRPSDBGTYBCVVLKYEKDAPKRBHLAZVMLSVKADFPTP918DFEI PPSNIRRI mni wpehknrti foithnlsivi lalrpsdegty ecvvlky ekoapkrehlaevtlsvkadfptpsitdfei ppsntrl mninpeykortifditmnlsivilalrpsdrgtygcvvlbyerdafkrehlaevmlsvkadfptysitdleippsnirri MNI WPEYKNQTI FOITMNLSIVI LALRPSDEGTYBCOVVLKYEKOAFKQEHLAEWALSVKADFPTPSISDFEIPPSNIRRI mniwpeyknrtifditnnisivilalrpsdegtybcvvlkybkdafkrehlabynlsvkadfptpsisdfeippsnirri MITMPEYKARTI FOLTHNISVVI LALRPSDEGTYBCVVLKYEKDAFKRBHLAEVTLSVKADFPTPSITDFELPPSNIRRI mnimpeyknrtifoitnnlsivilalarpsdegtxscvvleyekdafkrehlaevmlsvkadfptpsitdfeiffri MVI WPEYKARTI FOITNALSIVI LALRPSDEGTYBCVVLKYEKDAFYKREHLABYTLSVKADFPF9SI 9DFEI PPSNIRRI MNIWPEYKARTIFDITANNLSIVILALRPSDEGTYSCVVLKYBKDAFYKRRHLABYMLSVKADFPTPSITDFEIPPSNIRRI MVI WPEYKKRTI FOITNNLSI VI LALRPSDEGTYBCVVLKYSKOAFKRKHLABYMLBVKADFPTPSISDFEI PTSNIRRI MNI WPEYKARTI FOITMNLSI VILALR PSDEGTYBCVVLRYEKDAFKREHLABYTLSVKADFPPBI BOFBI PFSNIRRI MNIWPEYKNRTI FDITMNLSIVILALRPSDEGTYBCVVLKYBKDAFKRRHLABVTLSVKADFPTPSIBDFEI PFSNIRRI MNI WPETKARTI FDITKALSIVILALRPSDEGTYECVVLEYEKDAFKREHLABVALSVKADFFTSISDFEIPPSKIIRRI minpbyknrtifditnnlsivilalrpsdegtyrcvvlkybkoafkrehlarymlsvkadfptpsisdfeippsnirri #NIWPEYKNRTIFDITNNLSIVILALRPSDBGTYECVVLEYEKDAFKREHLAEVTLSVKADFPTPSISDFEIPTSNIRRI mnimpeykartifditanlsivilalrpsobgtyecvvlkyekdapkkehlaevtlsvkadpptpsisofeippsnirri MNIMPEYKARTI FOITANLSIVILALRPSDEGIYECVVLKYEKOAPKREHLAEVTLSVKADFPTPSISOFEI PTSNIRRI mai wpeckarti fdi tanlsi vi lalrpsdggtyscavlkyekdarkrehlaevtlsvkadfptpsi sdfei pisnirri mnimpeyknrti foitnrilsivi lalrpsdrgty ecvviky ekda pyrehlaevtlsvkadfptpsitoffei ppsnirri mniwpeyknrtifoithnisivilalrpsdegt-ecvvikyekdafkrehlaevtisvkadfftbeisdfippenirri mniwpeykartifditmalsivilalrpsdegtygcvvleyekdafkrehlarvallsvkadfptpsisdfeippsnirri mninpeyknrtifditinnlsivilalrpsdegtyecvvlkyekoafyrehlarymlsvkadpptpsitdfeippsnirri MNIWPEYKWRTIFDITWHLSIVILALRPSDEGTYBCVVLKYEKDAFYRBHLAHWALSVKADFPTPSITDFEIPPSNIRRI mniwpeyknrtifditunlsivilalrpsdegtybcvalkybkdaflabatlsvkadfptpsisdfeippenirri MNI WPEYKARTI FDITNNI,SIVI LALRLSDEGTYZCVVLKYEKDAFKREKLAGYTLSVKADFPTPSISDFEI PTBNIRRI minpehknrtifditnnlsivilalrpsdegtyecvvlkyekdafkrehlaevtlsvkadfptpsitdfeipfsnirri mniwprykkriifditnnlsivilalrpsdbggtvbcvvlkybkdafkrehiaevylsvkadpptpsigdpeippsnirri Extracellular domain (ECD) (18) (81) (81) (81) (81) 81) 81) 81) 81) 81 83 81) 81) 81) (81) (81) 81) 81) (61) 81) 81) 81) 81) 81) 81) 81) SEQ:233_ctla5x1f1 SEQ:234_ctla5x1d7 SEQ:235_ctla2x4g9 SEQ:246_ctla2x2f1 SEQ:247_ctla5x4h1 SEQ:248_ctla5x4h1 SEQ: 286 CTLA4BP Con SEQ:236_ctla2x4a6 SEQ:239_ctla2x1g8 SEQ: 240_ctla2x1f10 SE0:241_ctla2x1c9 SEQ:242_ctla2x1h12 SEQ:243_ctla2x1e2 SEQ:244_ctla2x1c4 3EQ:250_ctla5x2e12 SE0:227_ctla5x3c4 SEQ:229_ctla5x2h11 SEQ:230_ctla5x2d7 SEQ:232_ctla5x2b1 ns SEQ:237_ctla2x2f3 SEQ:238 ccla2x2f12 SEQ:245 ctla2x1b12 SEQ:249 ctla5x2f3 SEQ: 251 ctla2x4h11 SEQ:252 ccla2x3h2 SEQ:226 ctla5x3e8 SEQ:228 ctla5x3c3 SEQ:231 ctla5x2b7

Fig. 3D

icstsogfpephlswlengeelnainttvsqdpetelyavsskldfnmttnhsfmclikyghlrvnqtfnmttkqbhff iclisggfpbbilawkdgbelnaistivsqdpgtelyavsskldfnmtinhsfmclikyghlrvnqtpsnntpkqehpp icstsggppbphlpwlendbelnainttvsqdpbtblyavbskldpnmttnhsfmclikyghlrvnqtfnmnttkqehfp icstsggpppphlpglbngbbinainttasgdpbtblytvsspldpnmtpnrsfvclikyghlrvnqtfnmntpkqehpp icstaggfprphlswlrngbelna inttvsodpbtelytvsskldfnmtanhsfvclikyghlrvnctfnmntpkoehfp icstaggpppphlawlengeelnainttvscopetelytvssklopnatanhsfvclikyghlrvnoffnantpkoehfp icstsggffbphlfwlbngbelnainttvsgdpbtblytvsskq.dfnmttdrsfvclikydhlrvngtfnmytpkgenfp i cstsggfpephlswlbngbelna i nttvsqdpetelytvssklofnritnhsfmcl i kyghlrvnotfnnntprqehfp icstsogfpbephlswlengeblnaintivsodpetelytvsbkldfnmttnhspmclikyghlrvnqtpnntpkqehpp icstsogfppphlswlengeblnaintivsodpbtglytvsskqdfnmttnmspmclixxghlrvngtpnmntpkoehpp icstsoggpdephlamlengeblinginttvsqdpetelytvsskaldfinftnrsfvclikyohlrvngtpnnntpkqehfp icstsggppephlswlengeelmainttvbqdpgtelytvsskldpnmtanhgfvclixyghlrvnqtpnnntpkqehfp icstsggppephlfwlengeelnainttvsqdpetelyavsskqdprattnasfvclikyghlrvngtfnnntpkqehfp icstsggppephlswlengeelnainttvsqdpgtelytvsskldpnmttnhspmclikydhlrvnqtpnmntpkqehpp icstsggppephlfwlengeelnaintivsodpetelyavsskldfnmftnhsfmclikyghlrvnctfnmntpkoehfp icstsgofprphlswlendeelnaisttvsqoprtelytvsskldfnmttnrsfvclikyghlrvnqtfnmntpkqehfp icstsggppbphlswlengbelnainttasgdp**ete**lytvsskldpnmttnhsfmclikyghlrvnotfnmntprqehfp ICSTSGGPPBPHLSWLENGEELMAINTTVSGDPETELYTVS8KLDPNATANHSFVCLIKYGHLRVNQTFNANTPROEHPP icstsgofprphlphlengbelnaintivsqdPbtblytvsskodfnnttnhsfmclikyghlrvnqtfnntpkqbhfp icstsggfprphlftgrobelnainttvsqdprtblytvsskldfnmtthhspmclikyghlrvnotfnntprobhpp i cstsggpppplebylbngbelnainttvsodpbtelyavsskldfnmtinhsfmclikyghervnotpnrntpkoehpp icstsogppephlsmlengeblna*istt*vsqdpptelytvbskldpnmttnhs*e*mclikyghlrvnot**pnmnttk**oghfp icstsggppephlsmlengeelnainttvsqdpbtelytvsbkldpnmtanhspvclikyghlrvnqtpnmtpkqehfp icsasggppephlfwlengeelnainttvsqdpbetelyavsbrodpnmttnhsfmcliryghlrvnqtfmmtprqehfp icstsggppephlsnjengeelna inttasqdpetelytvsskldfnmtinnsfmclikychirvnotfnmtprqehfp icstsggppephlpmlengeblnaintfvgodpbtelytvsskldpnyttnrsfvclikyghlrvnQtfnwntprqbhp icstsggpprphlbmlengbelnainitvsqdpgtelytvssklidfnhttdrsfyclikyghlrynqtfnmttprdehfp icstsggppephlsmlengeelnainttasqdpgtelytvsskldpnmttnhsfmcliktghlrvnotfnmttpkgehfp I CST9GGFPEPHLPWLENGEELNAI STTV8QDPETELYAVBSKLDFNMTTNHSFMCLI KYGHLRVNQTFNMNTTKQBHPP Extracellular domain (ECD) (161) (191) (161) (191) (191) 161) (161) (191) (161)(161)161) 161) (181)(191) (161)(161) (161) (161)(191) (161)(161) (161)(161)[161] (161)(161)(191)(191) (161)SEQ: 077_R2_CTLA4BP-5x2-29
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SEQ: 083_R2_CTLA4BP-5x3-11b
SEQ: 083_R2_CTLA4BP-5x3-11b
SEQ: 085_R2_CTLA4BP-5x3-11d
SEQ: 085_R2_CTLA4BP-5x4-11d
SEQ: 085_R2_CTLA4BP-5x4-11d
SEQ: 085_R2_CTLA4BP-5x4-11d
SEQ: 086_R2_CTLA4BP-5x4-1f
SEQ: 086_R2_CTLA4BP-5x4-1f
SEQ: 089_R2_CTLA4BP-5x5-2e
SEQ: 099_R2_CTLA4BP-5x5-6e
SEQ: 099_R2_CTLA4BP-5x6-9d
SEQ: 091_R2_CTLA4BP-5x6-9d SEQ: 069_R1_CTLA48P-5 SEQ: 070_R1_CTLA48P-7 SEQ: 071_R1_CTLA4BP-11 SEQ: 072_R1_CTLA4BP-13 SEQ: 073_R1_CTLA4BP-27 SEQ: 278_Human_B7-1 SEQ:074_R2_CTLA4BP-5x2-10c SEQ:075_R2_CTLA4BP-5x2-11d SEQ:076_R2_CTLA4BP-5X2-12P SEQ: 092 R2 CTLA4BP-5x9-12c SEQ: 222 ctlasx9d10 SEQ: 223 ctla5x6f6 SEQ:224_ctla5x5h12 SEQ:225_ctla5x5c10

Fig. 3E

	Č	75.0	100	202	0.00	047	100	100	041	042	. <u>.</u>	0	100	4 6		4 6	0.5	<u> </u>	. 6	2 6	9	. 021	1	12.0		441		04	F. P.
Extracellular domain (ECD)	161) ICSTSGGFPEPHLFWLENGEBLNAINTIVSQOPETELYIVSSICDFNMIANHSFVCLIKYGHLRYNOTRNMVTDKOBBFP	1 CSTSGGFPEPRLAWREDGEELMAINTIASODPBTELYTVSSKLDPMYTTNRSFVCLIKYGHI, RVM/TTRAWTTPK/OZERP	ICSTSGGFPEPHLSWLENGEELNAINTIVSODPGTELYIVSSKLDFNMTINGSFMCLIKGGLLRUNOTPNMVTPKORHPP	ICSTSGGFPEPHLFWLRNGBELNAINTTASQDPBTELYAVSSGDPRMTTNHSFMCLIKGHLRVNGTERNNTPHOFHPD	ICSTSGGPPEPHLSWLRNGEELNAINTIVSQDPBTGLYTVSSJUDPRYTINHSPMCLIKYCHH.RVNOTFBRWATTPROFE	LCSTSGGFPEPHLSWLBNGBELNAINTTVSQDPGTELYTVSGTAMMANHSBVCLIKYGHLENNOTFERMANTER	I CSTSGGPPEPHLSWLSNLSHOBELNAINTIVSODPSTELYTGSSKLDFNATTHISEWCLIKYCHI, BUNGTESGMTPKGEUP	ICSTSCGPPEPHLFMLENGEELNAINTTASQDPETELYTVSSKLDFNMTANHSFVCLIKYGHLRVNOTFNMTTPKORPP	ICSTSOGFPEPHLFWLRNGBELNAINTTASODPETELYAVSSKLDFWRTTNH9FWCLIXXGHLEWNOTFWANTTPKONEHFP	ICSTSGGPPEPRIAMMEDGHEIMAISTTVSGDPGTELCTVSGKLDFWATTNHGFMCLIRYGOTERWAYTPKONHFP	I CSTSGGPPEPHLEVLENGEELMAISTTVSQDPETELYAXSSGLDFWTTTNHSPHCLIXYGHLEVNDTFFWANTPWARE	1 CSTSGGFPEPALSWLSWGBELMAINTIVSQDPGTELYTYSSKLDFWWTTWHSFWCLIXYGHLEWNOTFFWANTEWOODE	ICSTSGOPPEPALSWLENGEELNAINTTVSQDPETELYAVSSKLDFWATTNRSFNCLIKYGHLRANOTFNWATPKNEHFD	ICSTSGGFPEPHLSHLENGEELMAINTTV3QDPGTELYTV3SSKLDFNMTTNRSFVCLIKYQHLRVNDTFNMTTPROAHFD	I CSTSGGFPRPRIAMMEDGEELNA INTTVSQDPGTELYASBGDFMTTAHGFMCI I KYCHLRYNATFBMAFTBMCHFP	ICSTSGOFPEPRLAMMEDGEELNAISTTASODPETELYTVSSKLDFWITTNEGFACLIKYGHI, PVNYTFMANTEKOEHED	I CSTSGGPPBPHLSWLENGEBLINA I NTTVSQDPGTBLYTVSSGLDPNMTTNHSPMCLI KYCHLRVNTFRWNTFPKNRHPD	ICSTSGGFPEPHLSHLENGEBLNAINTTVSQDPGTBLYTVSSKIDDYMTTNHSFMCT.IKYGHLEVNOTPNNTTPKORHFD	1 CSTSGGFPBPHLFMLENGEELINAI NTTV5QDPGTBLYAVSSGLDFNMTNHNFMCLIKYGHLRVNCTFRNMTDROFEF	ICSTSGGFPEPRLAMMEDGEELMAINTTVSQDPETELYTVSSKIDFNMTANHSFMCLIKYGHLRUNCTPNMTTPKORHPP	I CSTSGGFPEPHL FWLENGESIMAINTTASGDPETELYTYSSGLDFYWTTNRSFYCL I KYGHLRYNOTFRWWYTDKOFFFE	I CSTSGGFPEPHLFWLENGEELMAINTTASODPETELYTYSSMLTTWRSPVCL.IXYGH. EVNOTERRANTENCEUTE	I C9TSGGFPEPHI.SWLENGBEI.NAINTTV9COPGTELYTV8SKLDPNMTTNPREPVCI-I EVCHU. ENDOTESTATION DE CONTENTE DE CO	I CSTSGGPPEPHLSWLENGEELMAINTTASODPETELYTYSSG, DENATTWESPYCT, TYVERT, DIAMAGENEEN DAY OF THE STATE OF THE STAT	I CSTSOGPPEPHLSWLENGEELNALSTTVSODPGTELZAVSSKLDPNATTVRBFVCL. FYGELL SVROTETAVENER FYDIAL FYGELL SVROTETAVENER FY	ICSTSGGPPEPHLSWLBNGRELMAINTTVBQDPGTELXAVBSQLDPNMTTNNGPMCLINGGTLRVNOTFRANKTBLOGER	ICSTPGGPPEPRIAWMEDGRELMAISTTVSQDDGTELYAVSSXLDFWMTTNHSPKCLIFXGHLAVWOTERWAYTTKORHED	ICSTSGGFPEPHLSWLENGEELNAINTTVSQDPETELYTVSSKLDFNWTTNH9FMCLIKYGHLRVNQTFNWNTPKQBHFP
		(191)	(161)	(191)	(161)	(161)	(191)	(191)	(161)	(161)	(161)	(161)	(160)	(191)	(161)	(161)	(161)	(161)	(161)	(161)	(191)	(161)	(161)	(161)	(161)	(161)	(161)	(161)	(161)
		SEQ:226_ctla5x3e8	SEQ:227_ctla5x3c4	SEQ:228_ctla5x1c3	SBQ: 229_ctla5x2h11	SEQ:230_ctla5x2d7	SEQ:231_ctla5x2b7	SBQ:232_ctla5x2bl ns	SBQ:233_ctla5x1f1	SEQ: 234_ctla5x1d7	SBQ: 235_ctla2x4g9	SEQ: 236_ctla2x4a6	SEQ: 237_ctla2x2f3	SEQ:238_ctla2x2f12.	SEQ: 239_ctla2x1g8	SEQ:240_ctla2x1f10	SEQ:241_ctla2x1c9	SEO:242_ctla2x1h12	SED:243_ctla2x1e2	SEQ:244_ctla2x1c4	SEQ:245_ctla2x1b12	SEQ:246_ctla2x2f1	SBQ:247_ctla5x4hl	SEQ:248_ctla5x4al	SEQ:249_ctla5x2f3	SEQ:250_ctla5x2e12	SEQ:251_ctla2x4h11	SEQ:252_ctla2x3b2	SEQ:286_CTLA4BP_Con

Fig. 3F

i i

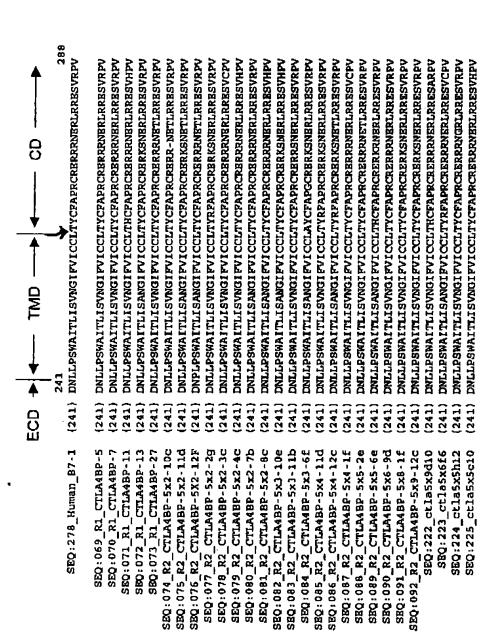


Fig. 3C

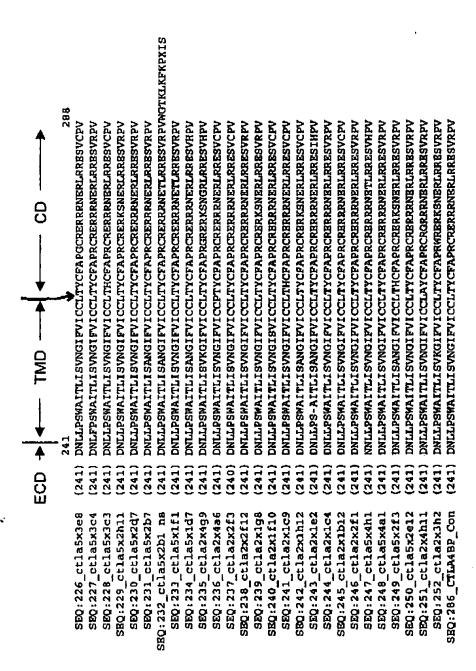
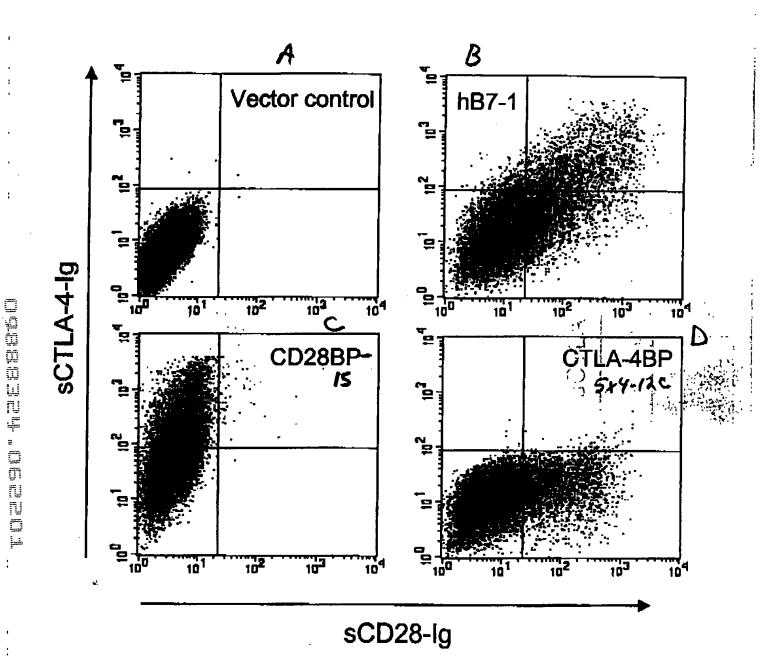
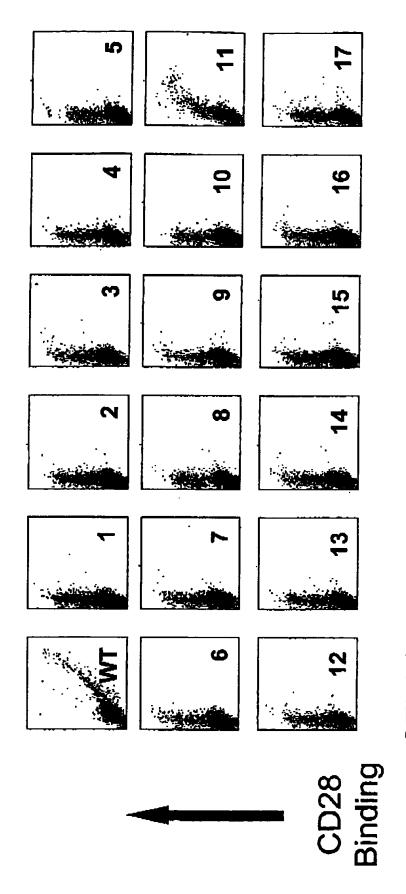


Fig. 3H



Frymes

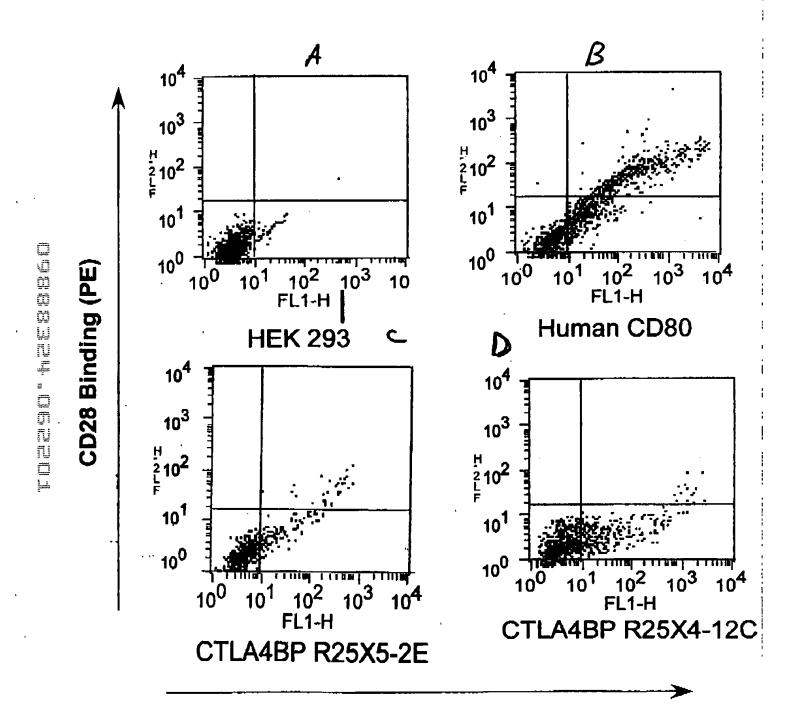
CD28BP after 2nd Round of Shuffling



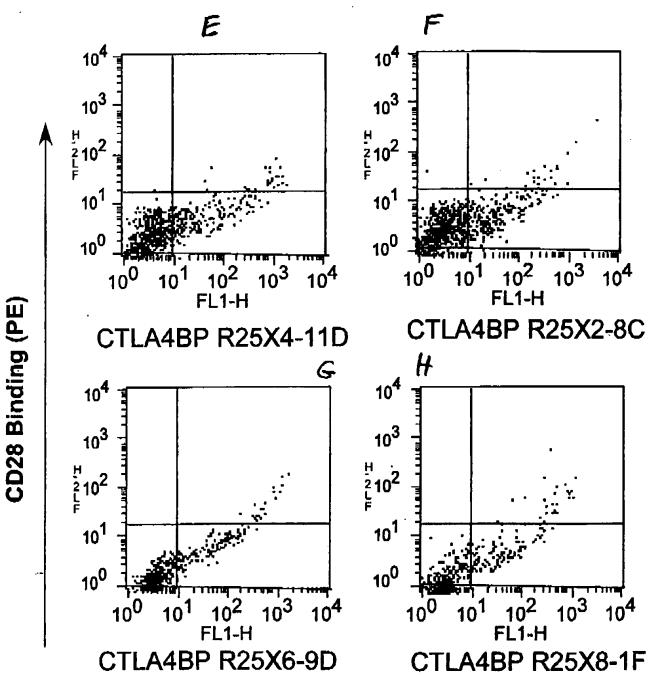
CTLA4 Binding ----

8(3)**E**3 Fores Calenta margable 46 **(**T) CTLA-4-Ig Binding A CO € \$1-1292 51-820)

CTLA-4-If Bendeng



CTLA4 Binding (FITC)



CTLA4 Binding (FITC)

a CTLA-4BP -5x4-12c

RIHWQKEKKMVLTMMSGDMNIWPEYKNRTIFDITNNLSIVILALRPSDEGTYECVVLKYEKDAF KREHLAEVMLSVKADFPTPSISDFEIPPSNIRRIICSTSGGFPEPHLFWLENGEELNAINTTVSQ DPETELYTVSSKLDFNMTTNHSFMCLIKYGHLRVNQTFNWNTPKQEHFPDNLLPSWAITLISA #GHTRROGTSPSKCPYLKFFQLLVLAGLSHFCSGVIHVTKEVKEVATLSCGHNVSVEELAQT NGIFVICCL TYRFAPRCRERKSNETLRRESVRPV * babbon - h- human orangutan baboon S3型1个 A hunan

CD28BP-15

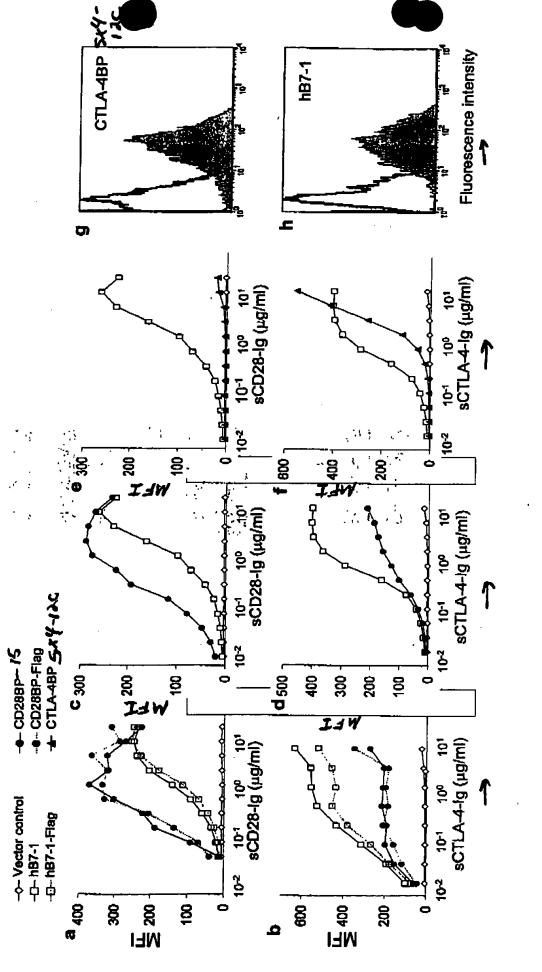
GAYKLEHLASVŘLMÍŘADFPVPŤINDĽČŇPŠĎNIRRĽICSTSGGFPŘPHLÝWLENGEELNAŤNT TVSQDPĞTELYMİSSÉLDENYTNAHSİVCLIKYGÉL ŠVŠQİFPWŠKPKQEPPİDĞLPFWVIIFVŠ ŠĽRIYWQKĎŠKMVLÁĬĽPGKVŎVWPEYKNRTIŤDMŇĎNPŘIVILALRPSDŠGTYŤCVĬŎKPVĽK <u>MGHTMŘÝGŠĽPPKŘPČLÝĽŠQLLVLŤGLĚŤFCSGŤŤPŘŠVTKŘVKEŤVMLSCĎÝNŤSŤEELŤ</u> A Trumby - ME COW GALVLTAVVLY¢LACRHVARWRRTRRNĖETVĞTERLŠPIYLĞSAĞSŠĞ

orangutan paboon rhesus human

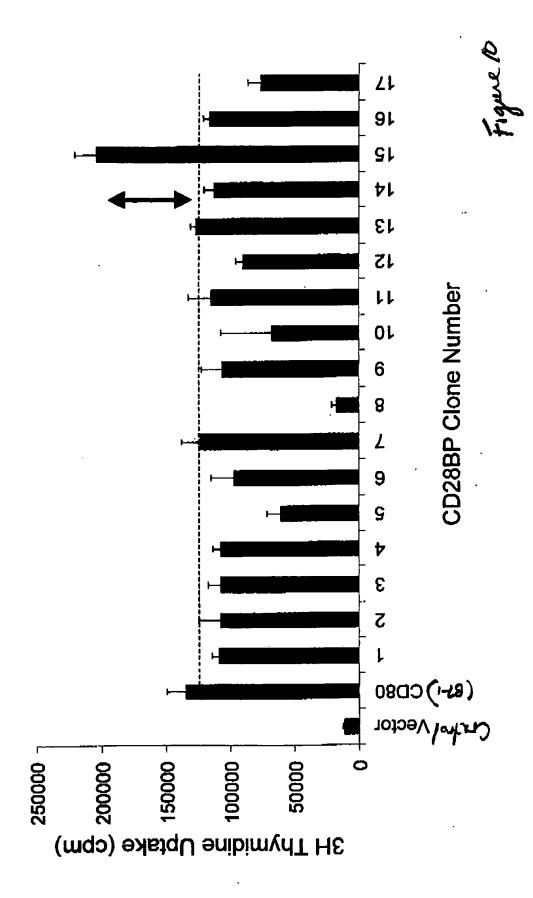
rabbit

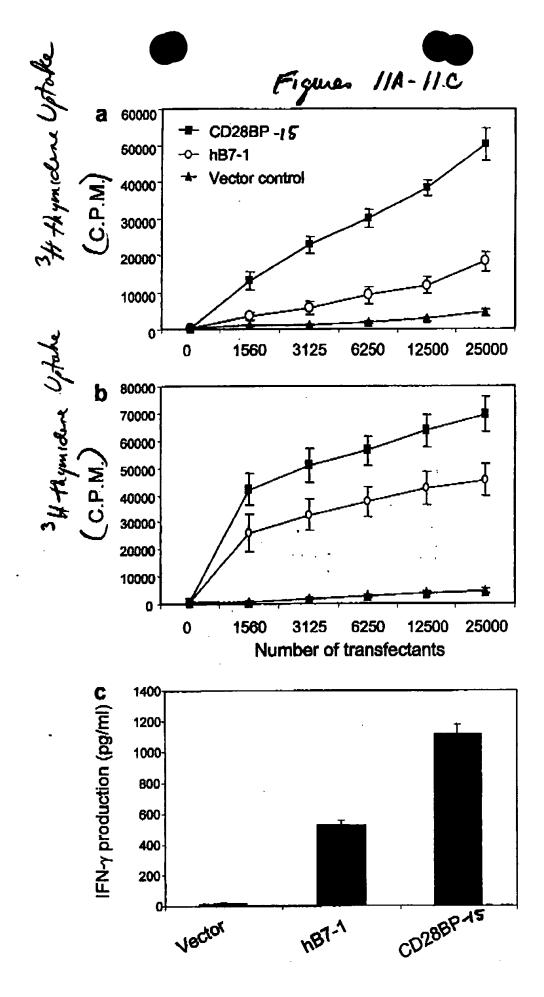
rhesus/baboon

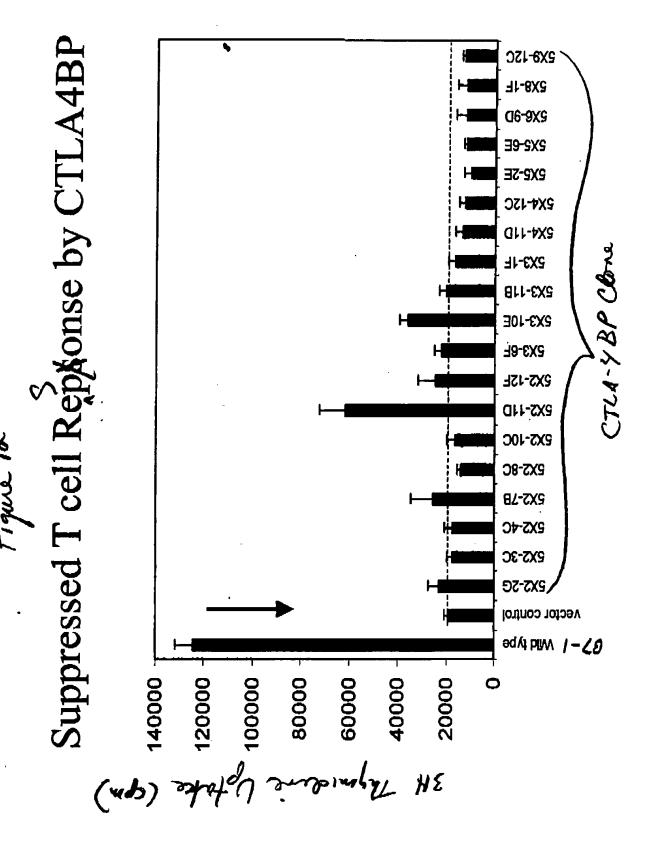
Sp



Figures 9A-9#







Figures 13 A-13D 34 thymodena Uptack C.P.M. (x10°3) B **b** 50 40 30 30 20 20 10 10 CTLANTIZE CD28BP45 Vector 1 WHE1-1 3125 6250 12500 25000 **Number of transfectants** IL-10 production (ng/ml) **p** oseszeu osesol IFN-y production (ng/ml) ○ 2.5 3.5 3.0 2.0 2.5 1.5 2.0 1.5 1.0 1.0 0.5 0.5 त्यम् । १८५० ।

Soluble Forms

V

Human B7.1 sECD

AAAGAPVPYPDPLEPPR AAHHHHHH

VIH.....TTKQEHFPDN

Extracellular Domain E-epitope His-tag

<u>-</u>

(35-242)

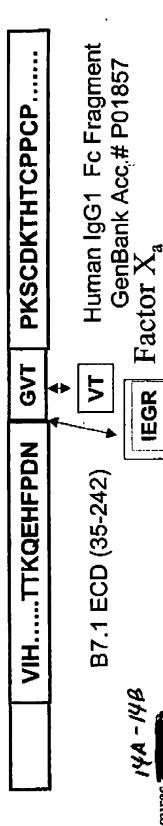
(1-34)

Signal

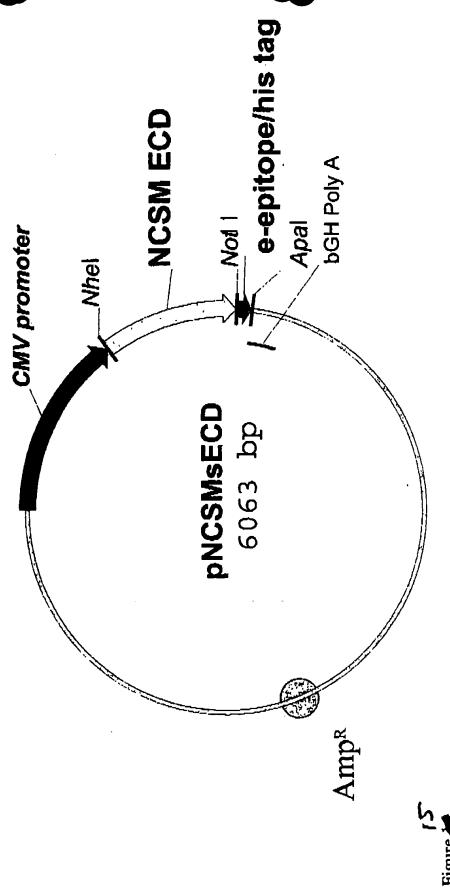
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B Human B7.1 ECD-lg Form

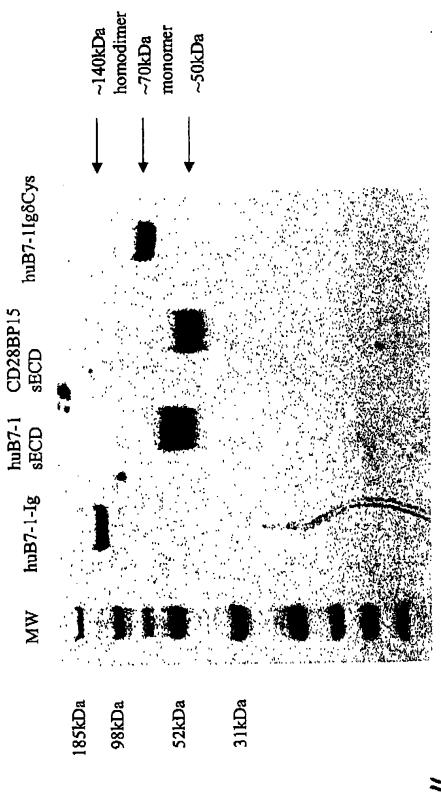
Bstell hinge -CH2-CH3



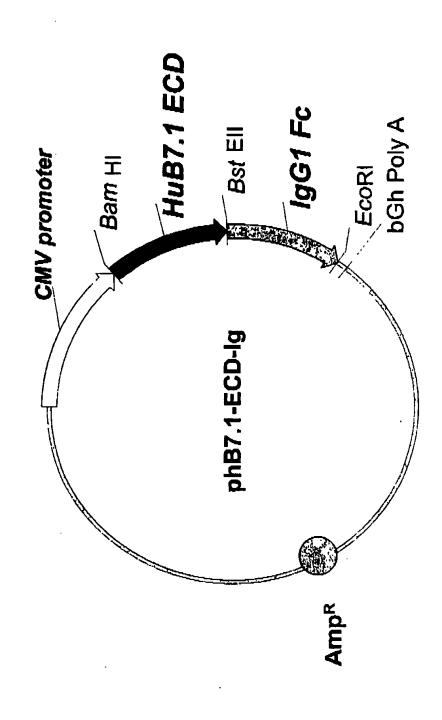
NCSM-sECD Expression Construct



SDS-PAGE showing various soluble forms of wt & NCSM proteins



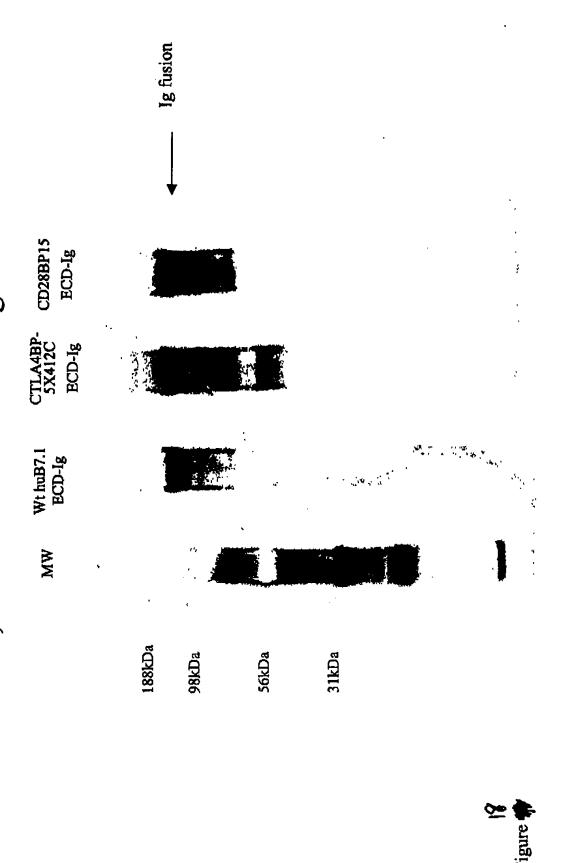
B7-1-ECD-Ig Fusion Expression Construct



F 43



Scale-up Production of wild-type soluble Human B7.1-, CTLA4BP 5X4-12C-, and CD28BP-15 ECD-Ig Fusion Proteins



Expression of CTLA-4-BP-Ig and CD28-BP-Ig Proteins

CTLA4-5X8-1F ECD-Fc
CTLA-5X6-9D ECD-Fc
CD28BP-15 ECD-Fc
CD28BP-17 ECD-Fc
CTLA-45X5-2E ECD-Fc
CTLA-5X4-12C ECD-Fc
CTLA-5X6-11 ECD-Fc

CTLA4-5X2-8C ECD-Fc

MW

MN

MR2-1-Fc

o4-1.78ud

Vector

~140 kDa ~70 kDa

Figure

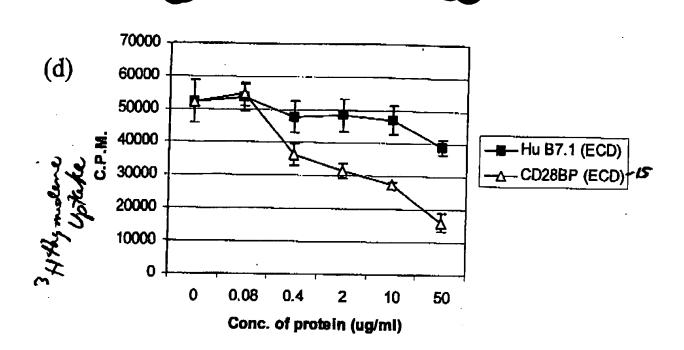


Figure 20D

